DOCUMENT RESUME

ED 078 127 VT 018 715

AUTHOR	Burns, William E.; Blue, Harold M.
TITLE	An Appraisal of the First Year and Recommended Activities and Strategies of the National Advisory and Review Committee. Public Service Occupations Curriculum Project.
INSTITUTION	California State Dept. of Education, Sacramento. Div. of Vocational Education.
SPONS AGENCY	Bureau of Adult, Vocational, and Technical Education (DHEW/OE), Washington, D.C.
PUB DATE	Jan 73
GRANT	OEG-0-71-4780(357)
NOTE	37p.
EDRS PRICE	MF-$0.65 HC-$3.29
DESCRIPTORS	Advisory Committees; Comprehensive Programs; *Curriculum Development; *Curriculum Research; *Human Services; Occupations; Program Administration; Program Content; Program Evaluation; Program Planning; *Public Service Occupations; Research Projects; Vocational Education

ABSTRACT

Career Education has recently emerged as a dominant theme in American Education, with its main thrust to prepare all students for a successful life of work by increasing vocational options and enhancing skill development. This report is one of a series developed to assist educators and administrators charged with the task of coordinating these programs. It summarizes the accomplishments of a national project to design a curriculum and implement career education programs in public serviced occupations, and it offers recommendations of successful strategies and activities to use in the implementation of such programs. Activities and accomplishments of the project effort included: (1) a national search for exemplary public-service programs and instructional materials, (2) development of teacher guides for the exploratory and preparation phase of the public-service occupation cluster, (3) limited pilot testing of one of the guides, (4) involvement of several hundred people from more than 20 states in the curriculum development process, and (5) establishment of liaison channels with over 80 organizations and groups. An earlier document describing the previous year's accomplishments is available as ED 062 526. (Author/SN)

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ED 078127

Public Service Occupations Curriculum Project

An Appraisal of the First Year and Recommended Activities and Strategies of the National Advisory and Review Committee

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An Appraisal of the First Year and Recommended Activities and Strategies of the National Advisory and Review Committee

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Bureau of Adult Vocational
and Technical Education
Curriculum Center for Occupational
and Adult Education
Grant No. OEG-0-71-4780 (357)

January 1973

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FOREWORD

This report is one of a series of documents developed to assist and inform those educators and administrators involved in implementing career education programs concerned with public service occupations. It presents the results of the second annual meeting of the National Advisory and Review Committee, Public Service Occupations Curriculum Project, with recommended activities and strategies for further implementation.

The many activities of the past year could not have been possible were it not for the generous and interested participation of many people and organizations -- the staff of the Program Planning Unit, Vocational Education Section of the California State Department of Education; administrators of the Department of Education; Committee members; the U. S. Office of Education; professional associations; members of local, state, and federal governments; educators; and many, many interested observers. To all involved, we express deep gratitude. With your assistance, it will be possible to develop practical guidelines leading to the establishment of programs of merit and lasting value, to inspire and direct the youth of today and tomorrow in proper career selection.

This summary report has been prepared by Dr. William E. Burns, State University of New York College at Buffalo, in collaboration with Mr. Harold M. Blue, of Sacramento, California. Dr. Burns is a member of the National Advisory and Review Committee of the Public Service Occupations Curriculum Project, and prepared the report of the first annual meeting, in January 1972. Mr. Blue is a special consultant to the Program Planning Unit,

Vocational Education Section, California State Department of Education, and edited the recently completed "Public Service Occupations Curriculum Guide." We are most grateful to Dr. Burns and Mr. Blue, and all the members of the committee for their participation.

Patrick J. Weagraff, Ed.D.
Project Director

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INTRODUCTION

Career education has recently emerged as a dominant theme in American educational reform. The fundamental concept of career education is that all educational experiences, curriculum, instruction, and counseling should be geared to preparation for economic independence and an appreciation for the dignity of work.

The main thrust of career education is to prepare all students for a successful life of work by increasing their options for occupational choice, by eliminating barriers -- real and imagined -- to attaining job skills, and by enhancing learning achievement in all subject areas and at all levels of education.

The scope of career education encompasses educational experiences beginning with early childhood and continuing throughout the individual's productive life. In the upper grades, 10 through 12, the student explores and develops elementary job-entry skills in one or more of the fifteen "occupational clusters" or "career families."

The California State Department of Education, Vocational Education Section, under a grant from the U. S. Office of Education, is endeavoring to develop nationally applicable, secondary-school guidelines for one of these "career families" -- the public-service occupations career field.

Work began on this project in the Fall of 1971, with the formation of a National Advisory and Review Committee, selected from representatives of

local, state, and federal government, as well as secondary and post-secondary education. The Committee met for the first time in January, 1972, at the U. S. Office of Education, Washington, D.C., for the purpose of establishing broad concepts and general guidelines for project implementation.

As an outgrowth of that meeting, a summary report, *Public Service Occupations in Career Education* (ERIC No. VT 015 050), with selected excerpts of the meeting discussions and Committee recommendations for project implementation, was prepared by Dr. William E. Burns of the State University of New York at Buffalo. The value of that report, and the interest in the subject matter, is demonstrated by the fact that over 4,000 copies have been transmitted to interested and involved personnel, organizations, and other cluster contractors.

This report is a review and analysis of the status of this Project as of October 1972, and is an outgrowth of the discussions and recommendations of the National Advisory and Review Committee held in San Diego, California, October 31 and November 1, 1972. Deliberations focused on the following generic questions:

- What is the consensus of this committee regarding the work completed by the Project this year?
- (Phase II) What should the exploratory phase of our work look like, and what kind of curriculum guide should result from this work?
- (Phase III) What is the consensus of this group regarding the curriculum guide *Orientation to Public Service Occupations?*
- (Phase IV) What are and should be the goals of the Phase IV curriculum guide?
- Recognizing the need to articulate our curriculum guides horizontally (to other secondary programs) and vertically (to post-secondary programs), what should we be concerned with?
- What should we be concerned with during pilot testing of the curriculum developed?
- What problems and experiences concerning special groups (handicapped, disadvantaged, etc.) can be identified in other programs which should be considered in planning and development of curriculum content and related practices?
- What other general concerns are important to conduct of the Public Service Occupations Curriculum Project?

An additional item, "What major changes could be made in the *Standards of Excellence* for conduct of the coming year's work?" was proposed for discussion, but was deferred for future action.

LIST OF PARTICIPANTS

This list of participants indicates an increased number of attendees over the first meeting, including members of the Committee, consultants, and interested observers. Names identified by asterisks are members of the Committee but not in attendance; however they will receive copies of the report of this meeting.

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Section 1

OVERVIEW OF ACCOMPLISHMENTS

Section 1

OVERVIEW OF ACCOMPLISHMENTS

While the Public Service Occupations Project is only eleven months old, much work has been accomplished by the grantee. This work has included:

- A national search for exemplary public-service programs and instructional materials;
- Development of teacher guides for the exploratory and preparation phases of the public-service occupation career education cluster;
- Limited pilot testing of one of these guides;
- Involvement of several hundred people from more then twenty states in the curriculum development process; and
- Establishment of liaison channels with over eighty organizations and/or groups.

The remainder of this section provides an overview of the major accomplishments of the California State Department of Education in its development of the Public Service Occupations Curriculum Project.

Public Service Analysis

A fundamental step in developing appropriate secondary-level curriculum for the public service career field was the definition of the meaning of "public services." The Public Service Project staff, together with a group of nationally prominent persons with expertise in local, state, and federal government, as well as in secondary and post-secondary education, adopted this definition for public service:

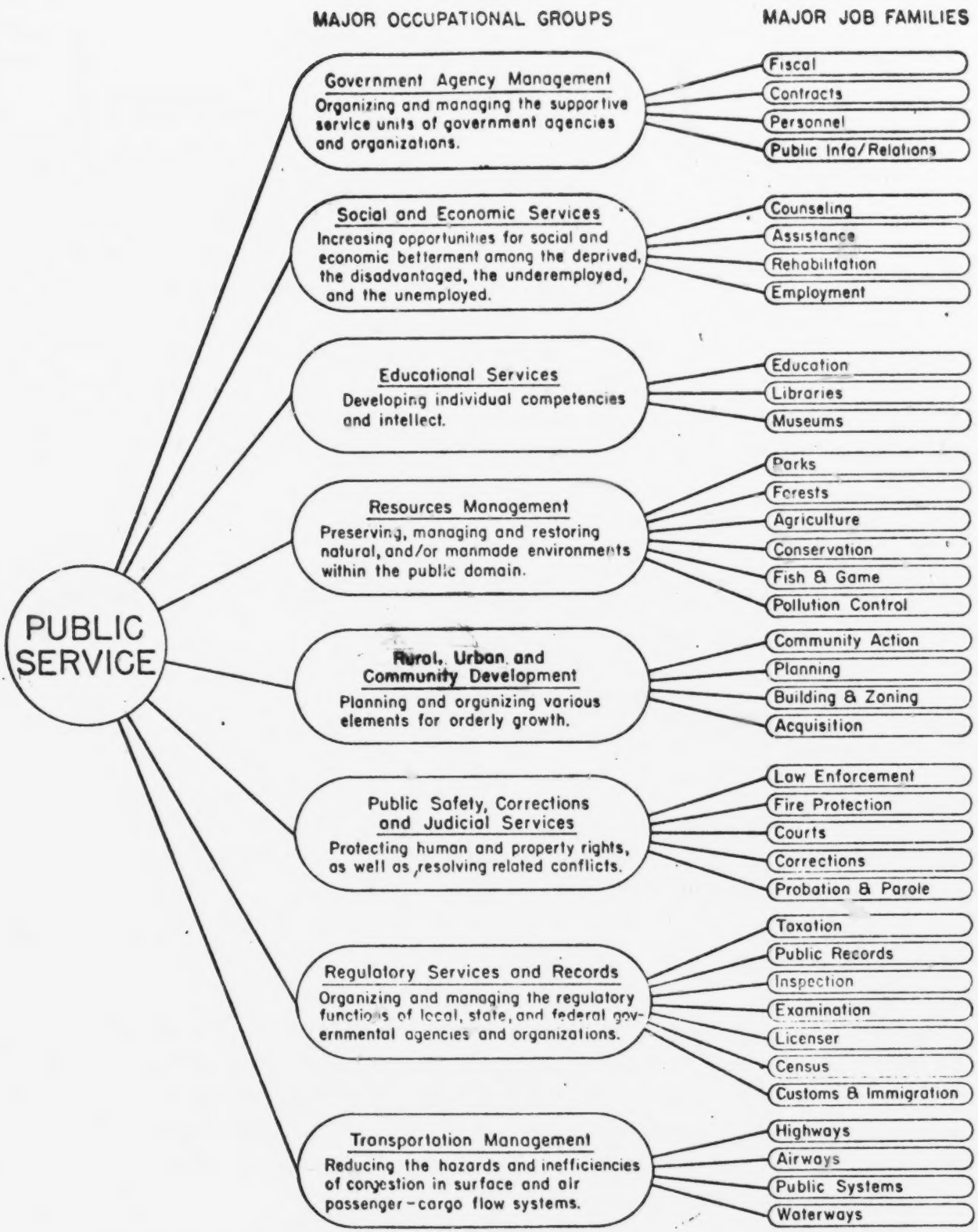


Figure 1 - Occupational Groups and Job Families in Public Service

> Public service occupations are those occupations pursued by persons performing the functions necessary to accomplish the mission of local, county, state and federal government, excluding the military service and trades requiring an apprenticeship. These missions reflect the services desired or needed by individuals and groups... and are performed through arrangements or organizations established by society, normally on a nonprofit basis and usually supported by tax revenues.

Based on this definition, eight "major occupational groups" and thirty-seven "major job families" were also identified, as illustrated by Figure 1. These major occupational groups reflect discrete governmental functions performed at local, state, and federal levels.

National Scope

It is notable that over 400 persons were involved in the validation of the basic analysis of the public-service occupations.

In addition, a national survey was conducted to identify public-service occupations programs at the secondary level. Based on this survey, instructional materials, curriculum manuals, etc., were gathered from seventeen states and reviewed for inclusion in the public-service occupations guidelines.

Curriculum Guides

The public-service occupations curriculum guidelines are organized around the eight major occupational groups and the thirty-seven job families. The first set of guidelines (which have already been completed) are designed to orient students to public service, with separate sections devoted to each major occupational group. A second set of guidelines, now being developed, is designed to provide students with elementary entry level job skills. A "common core" of information is a central focus of these guides.

Both guidelines contain outlines of subject matter content, teacher management activities, student learning activities, and appropriate instructional resources. Both utilize a unit approach and are highly adaptable to various

types of learning situations. Since each unit is self-contained, a teacher can readily select the objectives, content, and instructional materials required to meet local needs.

Transportability of Guidelines

To assure applicability to public service occupations across the country, the curriculum guidelines were developed and validated by personnel from several different states. In New York State, for example, a consultant to the Public Service Occupations Project led a task group of sixteen in developing objectives, content, activities, and resources for one of the major occupational groups. Similar task groups were utilized in various locations across the United States, including Kansas, California, and Washington, D.C.

As a further check on the appropriateness of the guidelines developed by the task groups, special validation groups were also utilized. These groups, made up of individuals with in-depth content expertise, reviewed the guidelines, and suggested changes and modifications. Following review by the validation groups, the guidelines were revised as required.

More than eight hundred people from twenty-one states served on either developmental task groups or on validation committees.

Pilot Testing

With the completion of the Orientation Guide, a need for evaluating the validity of the materials was apparent. Answers were needed for such questions as:

- Do students learn from the materials?
- Are the assumptions which were made concerning the level of information in the curriculum guidelines correct?
- Is the content in the curriculum guidelines applicable?
- Can students move from a point of abstraction to the state of being able to choose a career after being exposed to the curriculum guidelines materials?

Preliminary answers to these questions were provided by limited pilot studies, which were conducted in two California school districts -- the Long Beach Unified School District and the Fremont Unified School District.

The Long Beach Unified School District, with an enrollment of 70,000 students, tested the program in a regional occupational center which draws students from five other high schools. The length of the course was two hours per day, 5 days a week, for a ten-week summer session. The aims of this pilot study included a test of the content and the level of information in the curriculum guidelines, the amount of knowledge learned by the students, and the students' ability to choose a career after being exposed to the materials in the guidelines.

In the Long Beach pilot study, the Director of Vocational Education in Long Beach Unified School District, and the teacher selected to teach the Public Service Occupations course, were employed as consultants to the Public Service Occupations Curriculum Project for several months prior to the Summer School. These consultants have played an integral part in the evaluation and revision of the instructional materials. They received in-service training, consisting of orientation to the Public Service Curriculum Project; reviewed the curriculum guidelines for the eight major occupational groups; made preliminary determinations of those curriculum guidelines materials which were to be emphasized during the pilot testing, and evaluated and selected resources for the course from the instructional materials. Additionally, they assisted with the development of pre and post tests for students.

The students' general knowledge of Public Service Occupations was determined through use of a written questionnaire, administered by the teacher on the first day of the program. To validate the results of the pre-test, members of the Project staff conducted oral interviews with two-thirds of the students, who were selected at random. These interviews were held during regular class time.

At the completion of the pilot program, a post-test was administered to the students, which was again followed by interviews of students selected at

random. The results of the pre- and post-tests have been compared, and the value of the instructional materials has been estimated. An evaluative analysis of instructional staff reaction to the materials was also conducted.

The Fremont Unified School District, with a student enrollment of 33,000, used a unique approach -- enrolling both adults and teenagers in the program. The District also "coupled" the instruction with a cooperative work education program. The Fremont pilot test was primarily aimed at answering such questions as:

- What can a school district do with the guidelines in a "subject-centered" curriculum?
- Can the guidelines be implemented without any in-service training of staff?
- Can the guidelines be used with adults outside the typical school plant?

The Fremont District used the same curriculum guidelines as Long Beach, but the testing included both teenagers and adults. In contrast to Long Beach, no in-service training of staff was carried out in Fremont. The results of the pilot testing were used to modify and/or revise the curriculum guidelines as appropriate.

At this time, some empirical and subjective information is available from the pilot tests. In general, the guidelines have been well received by teachers and students, and appear to result in student learning. Evidence further suggests that the orientation guidelines can be used without "substantive" in-service training.

Additional Activities

Activities relating to the development of the Public Service Occupations Curriculum Project have been diverse and many-faceted. Technical expertise has been provided to several organizations involved with curriculum guideline development, such as American Institute of Research, Palo Alto, California, and the Sutherland Learning Associates, of Los Angeles. Presentations have

been made to over 500 participants in workshops in the western United States; and plans are now in progress for additional presentations, such as at the meeting of the American Vocational Education Association in Chicago, December 1972. Extensive documentation has been exchanged with several groups throughout the United States to further the overall concepts of public-service curriculum planning.

Section 2

RECOMMENDED ACTIVITIES AND STRATEGIES

Section 2

RECOMMENDED ACTIVITIES AND STRATEGIES

The October, 1972 meeting of the National Advisory and Review Committee can be considered a most successful and noteworthy meeting because of the complete involvement of all participants, the prior planning, the penetrating discussion, the "ground covered," and the many positive reactions, ideas, and suggestions that resulted.

Eight generic questions relating to the project implementation and accomplishments of the past year, and to plans and strategies for future action, were discussed in depth. These questions centered on analysis of the Phase III Guide, suggestions for developing the Phase IV Guide, initial conceptualization of Phase II requirements, pilot testing and evaluation, relationship of the Program to disadvantaged and handicapped persons, and other concepts and substantive areas to improve the over-all guidelines, and for further work in this area.

Following is a summary of the discussion related to each of the eight generic questions and the resultant recommendations of the National Advisory Committee:

Question 1. *What is the consensus of this Committee regarding the work completed by the Project this year?*

There was a clear consensus that the Committee approved and was pleased with the accomplishments of the past year, and that clear and positive steps had been taken toward the goals and objectives of career education in the Public Service Occupations Curriculum Cluster.

Specific reactions of Committee members included such comments as: "...Impressed with the way it's gone, with the work as a whole, with the people working on this, with the progress that's been made...We're definitely on the right path...", "...I strongly endorse what has happened in the past year..."; "...If as much progress can be made in the next year as this, this coming year will be very worthwhile..."; "...This has been a pioneering effort, and sets the standard..."

The Committee made no recommendations concerning this question, although the discussion relative to the following questions also relates in part to this question.

Question 2. *(Phase II) - What should the exploratory phase of our work look like, and what kind of curriculum guide should result from this work?*

While the exploratory or Phase II portion of this project has not yet been funded, work on this will begin sometime during 1973. In line with this, the Exploratory Phase curriculum guides should follow the U.S. Office of Education concept of career education, based on fifteen career clusters. All students theoretically "explore" all clusters at approximately grades 6-9, prior to the Orientation, or Phase III, level. Two major approaches are possible (industrial-arts orientation, where the student get in and does things, and its reverse -- classroom orientation).

The consensus of the group was that guides for this phase could best be accomplished by hands-on learning, simulation devices, role playing, and similar activities. Efforts should be made to encourage workers of all types to come into the schools to discuss their areas of service. A suggestion was made that national and local industry or public service groups might participate by temporary allocation of knowledgeable personnel for assistance in career-education programs.

It was brought-out that cost factors, such as those concerned with transportation, effectively limit field trips. Accordingly, this would indicate a need for a possible shift from career exploration to self-exploration, with greater involvement of parents.

Because of the inherent overlap between and within many of the fifteen major occupational clusters, there was a feeling expressed that the Exploratory Phase should not be confined to any one specialized cluster. There was also considerable concern about the inherent overlap between Phases I and II, and Phases II and III.

The group agreed that little, if any, career-exploration activities are now included in junior high school curriculums, and that any activity which may be underway is rather sporadic and unorganized.

It was brought out that the U. S. Office of Education has recently contracted with the American Institute for Research of Palo Alto, California, to develop K through 9 career education guidelines, and similarly, with Eastern Illinois University for K through 6 guidelines. These guidelines may or may not be developed along the cluster lines. Therefore, close coordination between the clusters in this phase will be critical.

Recommendations of the Committee were:

1. Consideration could be given to identify Phase II by a new title of "Career Planning and Exploration."

2. Materials in the Phase II Guide should have a major theme of self-exploration as well as job or career exploration; it is as important to know oneself as it is to know of one's career of interest.

3. The Phase II Guide should be directed toward general work-experience patterns, while recognizing the realities connected with this recommendation, such as transportation for field trips, and the accompanying financial constraints.

4. The Phase Il Guide should contain some degree of "hands-on" kinds of activities, and be consistent with sound learning theory for the age levels involved in Phase II.

5. The Phase II Guide should incorporate a variety of learning experiences, including simulation activities, role plays, etc.

6. The Phase II Guide should be rather brief and to the point, particularly in consideration of recommendation 7, following.

7. Phases I and II of involved activities should be done in close cooperation with other cluster contractors, considering that the same general kinds of problems, activities, etc., are common to all occupational clusters at this stage of development; in contrast, Phases III and IV

of the clusters must be performed independently of the other cluster contractors, since they tend to deal with preparation and orientation in specific and different areas.

Question 3. (Phase III - What is the consensus of this group regarding the curriculum guide "Orientation to Public Service Occupations?"

There was a clear consensus that the Phase III Curriculum Guide was well-done.

The committee felt that this was a worthwhile publication and would make a valuable contribution to education. The guide is well written and organized, contains significant teaching content, has many realistic and creative suggestions for activities for both teachers and students, and includes easily obtainable reference materials.

Some concern was expressed regarding the applicability of the guide to all situations. There seemed to be a feeling that uniformity between career groups may be difficult to achieve because of varying needs and demands. The modular nature of the Guide is intended to increase its flexibility for use in a variety of situations. It was emphasized that this is a Guide, and not a textbook; that it offers suggested, rather than mandatory, curriculum and activities.

Several participants mentioned the inability of students to accept the concept of public service careers without the prior introduction to career education which would be given by Phase II in the lower school grades. Others expressed a need for continued close coordination between the materials and direction of the Exploratory and Orientation Phases. The value of prior articulation from Phases I and II as a prerequisite for Phase III seems essential for maintaining a constant increase of perception, through awareness, exploration, and orientation, to the ultimate goal of career preparation in Phase IV. However, it should be kept in mind that the Public Service Occupation Project started with the Phase II Guidelines because of the scope of work required by the U. S. Office of Education.

Possible difficulties in articulation were expressed because of lack of uniform understanding among students and instructors of such basic terminology as "apprenticeship," "career," "job," etc., and the need for a glossary of such terms was suggested. Terminology should be as clear as possible.

It was indicated that actual implementation of these materials in the classroom might present some problems due to the lack of uniformity in our educational system, or understanding of career education. To facilitate the basic tenets and implementation strategies, it was suggested that a "Coordinator's Implementation Guide" be prepared. This would serve as an introduction to the curriculum guides, provide a basic philosophical outline of their purpose, and explain how to use them. This guide could also contain the glossary of terms and appropriate pre- and post-test material.

Recommendations of the Committee were:

8. Phases I and II materials should be closely coordinated and keyed to the Phase III Curriculum Guide.

9. Greater emphasis should be given in the introduction to the Phase III "Orientation Guide" to the suggested nature of this Guide.

10. The introduction to the Phase III Guide should elaborate on the Public Service definition previously adopted, and indicate the reasons for the exclusion of such fields as foreign service, the military, and health services from the definition and the Guide.

11. Evaluation components of the Phase III Guide should be constructed in such a way that they are keyed to the units of instruction, and deal more with "doing" activities, as opposed to "passive" kinds of knowledge acquisition.

12. A "Coordinator's Implementation Guide" should be developed which would indicate to the user the basic concepts of the Guides, contain aspects of in-service training, and show how Phases I, II, III, and IV relate to other subjects in the curriculum.

13. The "Coordinator's Implementation Guide" should include a glossary of terms to facilitate basic understandings between students, teachers, and other users of the Guides.

Question 4. (Phase IV) - What are and should be the goals of the Phase IV Curriculum Guide?

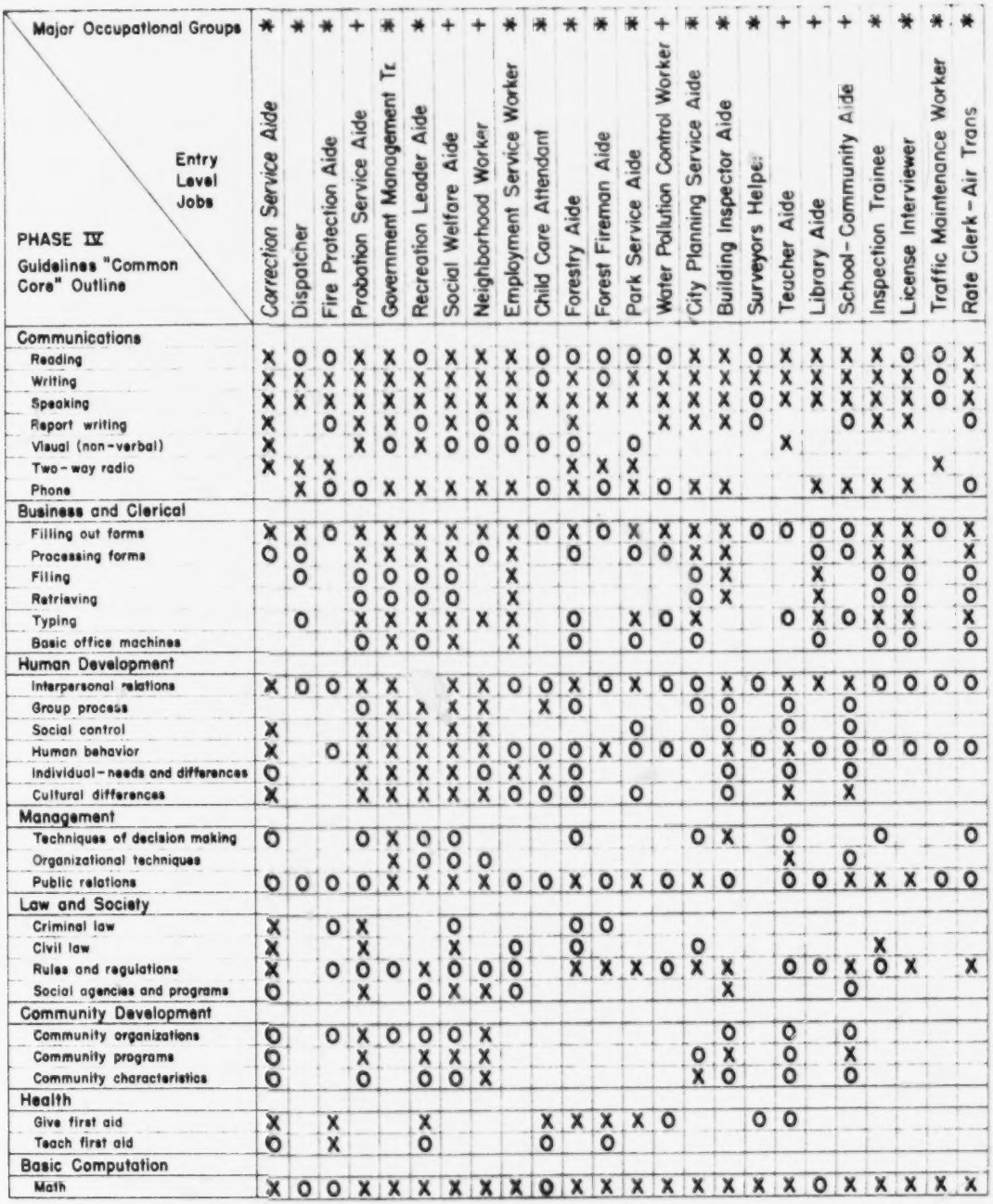
For purposes of analysis, a preliminary matrix of high-frequency and key tasks common to the public service area was introduced (see Figure 2). The difficulty of showing "all" tasks required for an entry-level job was readily apparent, as was the problem of including those infrequent, but key tasks which really determine the competency of an individual. Another problem is that approximately 12,000 entry-level jobs are in emergent fields not yet defined or included in the *Dictionary of Occupational Titles*.

Suggestions were made that the matrix might indicate levels of competency, such as the ability to type 40 or 60 words per minute. This might permit teachers to individualize programs for the students which would be correlated with the specific entry-level jobs for which they are preparing. Instruction might be coupled with work experience or on-the-job training. The questions of whether the instruction should be subject or core centered, and of relationship between the school and the job, were also discussed.

The effect that a competency-based curriculum might have on the Guides was reviewed. Although both Florida and New York State are implementing this type of approach, the standards for establishing such a curriculum currently are quite vague. Thus, the development of a competency based curriculum for Public Service may not be feasible at this time.

Local government entry-level jobs occupy a prominent place in the Public-Service cluster. Because of extreme variability between governmental functions, it was suggested that governmental agencies might be furnished with the guidelines which would indicate the education levels expected. The agencies could then fill in "around the edges" in a work-experience or cooperative-learning program. There was a strong feeling that there should be a coupled activity between the school and the governmental agencies.

The question was raised as to the possibility of merging functions into categories which would require a common core of competencies. The consensus of the group seemed to be that the Project should deal with occupational



Major Occupational Groups / Entry Level Jobs — PHASE IV Guidelines "Common Core" Outline	* Correction Service Aide	* Dispatcher	* Fire Protection Aide	+ Probation Service Aide	* Government Management Tr.	* Recreation Leader Aide	+ Social Welfare Aide	+ Neighborhood Worker	* Employment Service Worker	* Child Care Attendant	* Forestry Aide	* Forest Fireman Aide	* Park Service Aide	+ Water Pollution Control Worker	* City Planning Service Aide	* Building Inspector Aide	* Surveyors Helper	+ Teacher Aide	+ Library Aide	+ School-Community Aide	* Inspection Trainee	* License Interviewer	* Traffic Maintenance Worker	* Rate Clerk-Air Trans
Communications																								
Reading	X	O	O	X	X	O	X	X	X	O	O	O	O	O	X	X	O	X	X	X	X	O	O	X
Writing	X	X	X	X	X	X	X	X	X	O	X	O	X	X	X	X	X	X	X	X	X	X	O	X
Speaking	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	O	X	X	X	X	X	O	X
Report writing	X		O	X	X	O	X	O	X		X			X	X	X	O			O	X	X		O
Visual (non-verbal)	X			X	O	X	O	O	O	O	O		O					X						
Two-way radio	X	X	X								X	X	X										X	
Phone		X	O	O	X	X	X	X	X	O	X	O	X	O	X	X			X	X	X	X		O
Business and Clerical																								
Filling out forms	X	X	O	X	X	X	X	X	X	O	X	O	X	X	X	X	O	O	O	O	X	X	O	X
Processing forms	O	O		X	X	X	X	O	X		O		O	O	X	X			O	O	X	X		X
Filing		O		O	O	O	O		X						O	X			X		O	O		O
Retrieving				O	O	O	O		X						O	X			X		O	O		O
Typing		O		X	X	X	X	X	X		O		X	O	X			O	X	O	X	X		X
Basic office machines				O	X	O	X		X		O		O		O				O		O	O		O
Human Development																								
Interpersonal relations	X	O	O	X	X		X	X	O	O	X	O	X	O	O	X	O	X	X	X	O	O	O	O
Group process				O	X	X	X	X		X	O				O	O		O		O				
Social control	X			X	X	X	X	X					O		O	O		O		O				
Human behavior	X		O	X	X	X	X	X	O	O	O	X	O	O	O	X	O	X	O	O	O	O	O	O
Individual-needs and differences	O			X	X	X	X	O	X	X	O					O		O		O				
Cultural differences	X			X	X	X	X	X	O	O	O		O			O		X		X				
Management																								
Techniques of decision making	O			O	X	O	O				O				O	X		O			O			O
Organizational techniques					X	O	O	O										X		O				
Public relations	O	O	O	O	X	X	X	X	O	O	X	O	X	O	X	O		O	O	X	X	X	O	O
Law and Society																								
Criminal law	X		O	X			O				O	O												
Civil law	X			X			X		O		O				O						X			
Rules and regulations	X		O	O	O	X	O	O	O		X	X	X	O	X	X		O	O	X	O	X		X
Social agencies and programs	O			X		O	X	X	O							X				O				
Community Development																								
Community organizations	O		O	X	O	O	O	X								O		O		O				
Community programs	O			X		X	X	X							O	X		O		X				
Community characteristics	O			O		O	O	X							X	O		O		O				
Health																								
Give first aid	X		X			X				X	X	X	X	O			O	O						
Teach first aid	O		X			O				O		O												
Basic Computation																								
Math	X	O	O	X	X	X	X	X	X	O	X	X	X	X	X	X	X	X	O	X	X	X	X	X

Legend

- ☒ Uses to perform jobs
- ⊡ Understands-knowledge of
- * Listed in Dictionary of Occupational Titles
- + New or emergent job

Figure 2 - Matrix of High-Frequency and Key Tasks Common to Public Service

groups common to several entry-level jobs, thus facilitating the possibility of entering several related jobs.

Discussion also revolved about computer-card systems which list minimal group competencies for selected entry-level jobs. These provide somewhat for individualized curriculums, but the basic problem of overlap between clusters remains, and the committee felt that some type of common core, or competency-based approach, was desired.

The Committee discussed the format of the Phase IV Guide. They suggested that the format should be similar to the Phase III Guide, except that it might be desirable to break the Guide into five or six smaller, more easily handled, independent volumes.

Recommendations of the Committee were:

14. The Phase IV Guide should deal with major occupational groups of jobs in public service, with references keyed to particular jobs.

15. The Phase IV analysis should reflect a common core approach to curriculum organization.

16. A realistic range of basic job standards should be identified, so far as possible, in the Phase IV Guide.

17. A review and analysis of evolving or emergent jobs in Public Service which are not presently listed in the *Dictionary of Occupational Titles* should be made for possible reference to these job titles in the Phase IV Guide.

18. The Phase IV Guide should follow a format similar to that utilized in the Phase III Guide, including the same basic components of instructional objectives, content, student activities, teacher activities, and resources.

19. The Phase IV Guide should be organized into five or six separate components which can easily be combined into one total package.

Question 5. *Recognizing the need to articulate our curriculum Guides horizontally (to other secondary programs) and vertically (to post-secondary programs) what should we be concerned with?*

General agreement that a high degree of articulation and exchange of information is needed between the various curriculum contractors for the career families was evident. It was suggested that information be exchanged at all stages and levels of development by those involved, and with testing and user groups, state education departments, and the U. S. Office of Education.

Articulation is absolutely necessary to avoid costly overlap of effort, and to ensure programs that are compatible. Accordingly, it was deemed critical that complete coordination be maintained between the various phases of the Public Service Project, and among the various curriculum contractors.

The Committee realized that coordination between cluster contractors is a responsibility of the U. S. Office of Education. Numberous articulation coordination meetings have been held by U.S.O.E. While generally these meetings have been greatly successful, the problems of degree of contractor progress, stage of development, funding, etc., serve to inhibit articulation/coordination efforts.

Recommendations of the Committee were:

20. Curriculum materials or guides developed for the various phases should continue to be coordinated and provide a degree of consistency.

21. A greater exchange of information and communication should take place between the cluster curriculum contractors and other interested groups.

Question 6. *What should we be concerned with during pilot testing of the curriculum developed?*

To increase validity, reliability, and acceptability, it was agreed that any developed product, including curriculum materials, must be tested before it can be effectively utilized as a finished product. In line with this, some controlled testing of the Phase III Guide has been carried out in Long Beach and Fremont, California. Tentative arrangements are also being made to pilot test the Guide in several other states.

The Committee felt that pilot testing could also be carried out in private schools as well as public schools, and that in-service staff development could be carried out simultaneously with the pilot testing for earlier implementation.

A key prerequisite to the field testing is to locate a highly motivated teacher, supported in turn by an equally motivated school administrator. The Committee suggested that the most logical person appeared to be a person holding a job at a level just under the middle management administrator level. More specifically, it was agreed that the chairman of the social science department of a high school might be in the most advantageous position to test these guides.

Other possible relationships were also discussed, such as coupling the field testing to selected career education programs already on-going in the public schools. Communities such as San Diego, or some in Western New York State, offer possibilities for field testing two or three clusters simultaneously, such as hospitality and recreation, public service, and construction.

For purposes of evaluation, student reactions, teacher evaluations, and administrators' inputs, all are a necessary and valid part. Additionally, criterion-referenced measurement devices should be built into the Phase III and the Phase IV Guides to help measure student change.

Recommendations of the Committee were:

22. Pilot testing should be recognized as only one aspect of evaluation. Other components of curriculum evaluation should also be used for a higher degree of validation.

23. The evaluation process should be broadly based to include empirical as well as subjective data.

24. It is recommended that pilot testing be carried out with, and by, school department heads or individuals at a comparable level.

25. Pilot testing should also involve simultaneous in-service staff development.

26. Initial locations to be used for pilot testing (including public, proprietary, and parochial schools) should be selected primarily on the basis of the expressed motivational interests of the school staff members who will be using the materials.

Question 7. What problems and experiences concerning special groups (handicapped, disadvantaged, etc.) can be identified in other programs which should be considered in planning and development of curriculum content and related questions?

Members of the Project staff have been concerned with making the curriculum guides applicable as possible to a wide range of persons, including specialized groups such as the disadvantaged and the handicapped. Interest in the guides has also been expressed by persons associated with such programs as "Model Cities" and "WIN," who view the guides as potential training materials. The Guides and related materials could be used as textual information, or as adjuncts to on-the-job or other types of training as they become available.

The possibility that a range of activities based somewhat on the task-analysis chart could be utilized in conjunction with other learning materials in individualized learning activity packages for ethnic, handicapped, or other disadvantaged persons, was discussed. There are precedents available for attitudinal or learning-field instructional packages tailored to a student's needs, intellect, and motivational maturity. Similarly, the student activities and teacher activities in the Guides might be geared to provide a range of learning materials. One approach to increasing the adaptability and useability of the Guides might be to institute an exchange of information between programs, or discussions to consider the relationship of the emerging career-education programs with the goals and needs of the programs for the handicapped and disadvantaged. Work experience would probably be a predominant theme.

The need for an effective public relations program was also emphasized. While promotional programs may or may not be appropriate as a part of this project, it must be admitted that it is essential that handicapped and disadvantaged persons and persons working in these programs, as well as the general community, need to become aware of the potential uses and values of the guides.

Discussion also centered on the desirability of other types of supportive activities, such as individual assistance, to encourage the student to complete an entire program. One technique found to be highly successful in

Long Beach was for the teacher to call the parent when the student did something good, rather than the opposite. Effective counseling, peer instruction, individualized help or tutoring, and other morale and motivational builders possibly could assist the student in wanting and finding success in his field.

It was felt that much could be learned about these aspects from programs now in existence, which would have applicability or inferences to build upon. Mention was made of the "CAP" and the "New Careers" programs.

Several persons mentioned the suitability of the career-education guides for preparing paraprofessionals in a number of fields. The proposed "Coordinators Implementation Guide" might include suggestive methods for instruction, such as peer teaching and role playing, as well as ways of employing the handicapped and disadvantaged in entry-level or paraprofessional jobs.

Existing Civil Service regulations could inhibit or limit many job opportunities. It is also recognized that there presently is little market for the services of a paraprofessional, and that this type of job is essentially dependent upon some form of government support for its existence. To date, few can be considered as "emergent-type" jobs.

Recommendations of the Committee were:

27. The "Coordinators Implementation Guide" should incorporate materials designed for a range of competencies and abilities, including activities for handicapped or disadvantaged persons.

28. Instructional materials and suggestive methodology should build on experiences gained from existing programs for the handicapped and disadvantaged.

29. An examination of a variety of teaching strategies, such as role playing, peer teaching, etc., should be made and included in the Guides as appropriate.

30. A firm public relations program should be initiated to acquaint the handicapped and disadvantaged with the existence of, and opportunities available to them, through this Project. Emphasis should be placed on special motivational devices for the Phase II Exploratory level.

31. An effort should be made to include in the Guides instructional media and other materials that are appropriate for the handicapped and disadvantaged.

32. The feasibility of presenting the Curriculum Guides in modes appropriate for other types of handicapped persons should be explored. This might include putting the Guides in Braille, or making master tapes and distributing these through repositories for the blind, and printing the Guides in large-style type for the hard of seeing.

Question 8. *What other general concerns are important to conduct of the public services occupations curriculum project?*

The need for greater articulation and coordination between the career education cluster contractors was again emphasized. Maximum encouragement should be given to the U. S. Office of Education to achieve this.

Increased dissemination of all materials was strongly urged by the Committee. In addition to placing the materials in the ERIC system and printing by the Government Printing Office, other avenues such as the computer based resource system in operation at the S.U.N.Y. College at Buffalo, which can provide both large and small group instructional materials and individualized programs, should be investigated for their adaptability and suitability.

Recommendations of the Committee were:

33. The U. S. Office of Education is encouraged to continue and intensify the correlation of activities of the various cluster contractors.

34. The completed curriculum Guides and other reports detailing the developmental processes should be placed into the ERIC and other dissemination systems, in addition to publication by the Government Printing Office.